

What is claimed is;

1. An electronic toothbrush comprising:  
a brush head portion having a bristle portion (2a),  
to be inserted into an oral cavity, for washing teeth; and  
a holder portion to be exposed outside the oral cavity,  
an n-type semiconductor is provided so as to be capable  
of receiving external light; and  
a battery is provided so as to be capable of superposing  
an electric potential on the n-type semiconductor.
2. The electronic toothbrush according to claim 1, wherein  
the n-type semiconductor is  $TiO_2$ , and output of the battery  
is more than 0.5 V and less than 3.0 V.
3. The electronic toothbrush according to claim 1 or 2,  
wherein the battery is either one of a primary battery, a  
secondary battery and a solar battery, or combination thereof.
4. The electronic toothbrush according to claim 2 or 3,  
wherein the  $TiO_2$  is an anatase-type crystal.
5. The electronic toothbrush according to any one of claims  
2 to 5, wherein the  $TiO_2$  is rod like and incorporated into  
the brush head portion, while the battery is button like,  
and these battery and the  $TiO_2$  are made conductive via a  
conductive line incorporated into the brush head portion.
6. An electronic brush comprising:  
a brush head portion having a bristle portion,  
characterized in that:

an n-type semiconductor is provided so as to be capable of receiving external light; and

a battery is provided so as to be capable of superposing an electric potential on the n-type semiconductor.

7. The electronic brush according to claim 6, wherein the n-type semiconductor is  $TiO_2$ , and output of the battery is more than 0.5 V and less than 3.0 V.

8. The electronic brush according to claim 6 or 7, wherein the battery is either one of a primary battery, a secondary battery and a solar battery, or combination thereof.

9. The electronic brush according to claim 7 or 8, wherein the  $TiO_2$  is an anatase-type crystal.

10. The electronic brush according to any one of claims 7 to 9, wherein the battery is embedded in the holder portion following the brush head portion, while the  $TiO_2$  is attached in the vicinity of the brush head portion, and these battery and the  $TiO_2$  are made conductive via a conductive line.